

REMARKS

SUMMARY:

The subject application sets forth claims 1, 3-37 and 39-63, of which claims 1, 18, 28, 41, 47, 51, 52 and 61 are independent claims. Claims 1-18 stand rejected under 35 U.S.C. §112, first paragraph as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1-14, 52, 54 and 60 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,327,541 (Pitchford et al.) Claims 15-17 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Pitchford et al. in view of U.S. Patent No. 8,597,607 (Jenney et al.) Claims 18-38, 40-50 and 61-63 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over (Jenney et al.) in view of Pitchford et al. and further in view of U.S. Patent No. 5,448,230 (Schanker et al.) Claims 51-53 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Pitchford et al. in view of Schanker et al. Claims 55-56 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Pitchford et al. Claims 57-59 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Pitchford et al. in view of U.S. Patent No. 5,553,094 (Johnson).

Responses to the rejections summarized above (including traversals of the prior art rejections) are hereafter presented with respect to each individual argument presented by the Examiner.

35 U.S.C. §112, FIRST PARAGRAPH REJECTIONS:

Claims 1-18 stand rejected under 35 U.S.C. §112, first paragraph as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. More specifically, the 1/23/03 Office Action sets forth on numbered page 2 that the "Examiner cannot find support in the specification for the claimed language 'a hub to receive transmission as packet[s] from the sensor, the transmission containing both old and new measurement'."

Applicant respectfully submits that the specification does support the above-referenced claim element. More specifically, page 2 line 27- page 3 line 1 of the subject application sets forth that “the collection devices have a hub to receive transmissions from the sensor”. Support for the transmission being packets and containing both old and new measurements can be found on page 14, line 26 – page 15, line 7 of the subject application. More particularly, “meters 10-17 accumulate and transmit the consumption of metered entity on a pseudorandom bases over 300 times per day. The packets transmitted in each transmission includes redundant data transmitted in each of several previous transmissions. This temporal redundancy is desirable to improve system reliability. Redundant data will be filtered by collection devices 20-22...” (emphasis added).

Based on the foregoing remarks, Applicant respectfully traverse the rejection of prior claims 1-18 under 35 U.S.C. §112, first paragraph.

35 U.S.C. §102(e) REJECTIONS:

Claims 1-14, 52, 54 and 60 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,327,541 (Pitchford et al.) Applicant respectfully requests reconsideration and allowance of such claims based on the following remarks.

CLAIMS 1-14:

The January 23, 2003 Office Action set forth on numbered page 1 that Pitchford et al. discloses an electronic energy management, specifically including a “network device to forward meter data via internet connection to a data processing center to generate an output function.” Despite such allegations, Picthford et al. does not disclose each element of independent claim 1, and thus such reference cannot by law serve to anticipate such claim.

Claim 1 presently sets forth a data collection system having a plurality of collection devices, each collection device including a network device to forward at least a subset of a series of said transmissions over an internet connection to a data processing center to generate an output function (emphasis added).

Pitchford et al. does disclose an information provider module with various microcell, cell

master and system controller elements, but none of these correspond to the “collection devices” as set forth in independent claim 1 of the subject application. More particularly, the collection devices set forth in present claim 1 are indeed defined as a plurality of collection devices each having a hub to receive transmissions from selected of a plurality of telemetry devices. As the collection devices of claim 1 are defined, the only elements in Pitchford et al. that could possibly correspond with aspects of such collection devices would be one of the microcell or cell master elements in the information provider module 20. However, the collection devices set forth in present claim 1 each include “a network device to forward at least a subset of a series of transmissions over an internet connection to a data processing center”. None of the microcell, cell master, or other plurality of elements disclosed in Pitchford et al. are provided with any sort of internet or network processing capabilities. The only provision for internet functionality disclosed in Pitchford et al. is via connection to a single web server computer and/or user PCs integrated with the effective data processing center. As such, where present claim 1 calls for collection devices that provide respective internet connections to a central data processing center (e.g., via point-to-point protocol (PPP), Ethernet, or wireless Internet Protocol (IP) connections) the connections from the microcell and cell master elements to a central data center are via non-specific wireless RF links and the Internet connections are only provided at the centralized data repository.

As such, the collection devices set forth in present claim 1 have much more functionality, thus affording the associated data collection system with more versatility, than the system set forth in Pitchford et al. Picthford et al. fails to disclose every element of claim 1 as presently set forth, and thus cannot by law serve as an anticipatory reference. Based on the above response, Applicant respectfully submits that claim 1 is in condition for allowance, and acknowledgement of the same is earnestly solicited.

Claims 3-14 also stand rejected under 35 U.S.C. §102(b) as being unpatentable over Pitchford et al. Since such claims variously depend from otherwise allowable claim 1 and further limit same, claims 3-14 should also be allowed.

CLAIMS 52-60:

The January 23, 2003 Office Action set forth on numbered page 4 that Pitchford et al. discloses a method of collecting data as set forth in independent claim 52. Despite such allegations, Pitchford et al. does not disclose each element of independent claim 52, and thus such reference cannot by law serve to anticipate such claim.

Claim 52 sets forth a method of collecting data, specifically including the steps of generating measurements using a telemetry device, transmitting the stored measurements in a collection device, processing the transmitted measurements at the collection device, and then further transmitting measurements to a monitoring station by an internet connection. Claim 52 further sets forth the step of displaying measurements on at least one web page, wherein the web page is hosted by the collection device.

Pitchford et al. does disclose an information provider module with various microcell, cell master and system controller elements, which may receive measurements obtained at a telemetry device, but none of such elements correspond to the "collection devices" as set forth in independent claim 52 of the subject application. More particularly, claim 52 sets forth that the collection devices are configured to process measurements transmitted thereto and to host at least one web page. As the collection devices in accordance with the methodology of claim 52 are defined, the only elements in Pitchford et al. that could possibly correspond with aspects of such collection devices would be one of the microcell or cell master elements in the information provider module 20. However, none of the microcell, cell master, or other plurality of elements disclosed in Pitchford et al. are provided with any sort of internet, processing, or web-page hosting capabilities. The only provision for such internet-related and processing functionalities disclosed in Pitchford et al. is via a single web server computer and/or user PCs integrated with a centralized data repository.

As such, the data collection methodology set forth in claim 52 is clearly distinguished from that set forth in Pitchford et al. Pitchford et al. fails to disclose every element of claim 52 as presently set forth, and thus cannot by law serve as an anticipatory reference. Based on the above response, Applicant respectfully submits that claim 52 is in condition for allowance, and

acknowledgement of the same is earnestly solicited.

Claims 54 and 60 also stand rejected under 35 U.S.C. §102(b) as being unpatentable over Pitchford et al. Since these claims as well as claims 53 and 55-59 variously depend from otherwise allowable claim 52 and further limit same, all claims 52-60 should be allowed.

35 U.S.C. §103(e) REJECTIONS:

Claims 15-17 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Pitchford et al. in view of U.S. Patent No. 8,597,607 (Jenney et al.) Claims 18-38, 40-50 and 61-63 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over (Jenney et al.) in view of Pitchford et al. and further in view of U.S. Patent No. 5,448,230 (Schanker et al.) Claims 51-53 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Pitchford et al. in view of Schanker et al. Claims 55-56 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Pitchford et al. Claims 57-59 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Pitchford et al. in view of U.S. Patent No. 5,553,094 (Johnson).

Applicant respectfully requests reconsideration and allowance of such claims based on the following remarks.

CLAIMS 18-27:

The January 23, 2003 Office Action rejected previous claims 18-27 as allegedly being unpatentable over Jenney et al. in view of Pitchford et al. and some in further view of Schanker et al. More particularly, the Office Action asserts on numbered page 6 that a combination of such references discloses a method of collecting data such as set forth in previous claim 18. However, all elements of independent claim 18 as presently amended are not disclosed singularly or in combination of the above-mentioned references, and thus such obviousness rejection is respectfully traversed.

Claim 18 as presently amended sets forth a method of collecting data, specifically including the steps of receiving at an intermediate processing device a series of measurements from a plurality of telemetry devices, storing and filtering the measurements, and subsequently

transmitting the filtered data from the intermediate processing device through an internet connection to a processing center.

Pitchford et al. does disclose an information provider module with various microcell, cell master and system controller elements, which may receive measurements obtained at a telemetry device, but none of such elements correspond to the “intermediate processing devices” as set forth in independent claim 18 of the subject application. More particularly, claim 18 sets forth that the intermediate processing devices are configured to store and filter measurements transmitted thereto and to subsequently transmit that filtered data through an internet connection to a processing center. As the intermediate processing devices in accordance with the methodology of claim 18 are defined, the only elements in Pitchford et al. that could possibly correspond with aspects of such devices would be one of the microcell or cell master elements in the information provider module 20. However, none of the microcell, cell master, or other plurality of elements disclosed in Pitchford et al. are provided with any sort of internet or processing capabilities. The only provision for such internet-related and processing functionalities disclosed in Pitchford et al. is via a single web server computer and/or user PCs integrated with a centralized data repository.

Jenney et al. discloses various automatic meter reader (AMR) units, each of which is associated with a particular meter device. Each one of these meter/AMR modules is directly coupled to a centralized data acquisition and reporting system via some communications network. It is specifically set forth in present claim 18 that the intermediate processing device receives a series of measurements from a plurality of telemetry devices. As such, the intermediate processing device set forth in present claim 18 must be a device remote from the respective telemetry devices such that it can be configured to receive transmissions from a plurality of such telemetry devices. Jenney et al. does not disclose such an integrated environment as set forth in present claim 18, namely the steps undertaken by the intermediate processing device.

The method of claim 18 is set forth for implementation in a networked data collection hierarchy consisting of three major elements: telemetry devices (each having some sort of data

sensing, storing and transmitting functionality), intermediate collection/processing devices, and a centralized data processing center. A particular aspect in accordance with some embodiments of the invention is that the intermediate collection/processing devices are designed with advanced functionality. In many embodiments, the intermediate collection devices include processing features for storing and filtering data received by an associated hub element as well as a network device for providing an internet connection to a data processing center and an associated HTTP server for hosting respective web pages.

The advanced functionality afforded by such intermediate collection devices is not the focus of Jenney et al. or of Pitchford et al., and such references actually teach away from the embodiment set forth in present claim 18. Generally, Pitchford et al. provides for aspects of such advanced functionality only at the centralized data processing center, and thus all effective telemetry devices and intermediate devices have limited functionality compared to the intermediate processing devices defined in accordance with the methodology of present claim 18.

Furthermore, Jenney et al. provides for aspects of advanced processing and communication at each one of the telemetry devices, thus effecting additional implementation costs by requiring advanced functionality at each respective meter. The methodology set forth in present claim 18 is provided in accordance with a network hierarchy that provides a unique solution in light of the systems disclosed in both Jenney et al. and Pitchford et al. More particularly, the provision of advanced functionality at an intermediate collection device reduces cost incurred by requiring functionality at all telemetry devices while simultaneously offering advanced networking and processing capabilities otherwise not afforded if such functionality is only provided at a single centralized location.

As such, the data collection methodology set forth in claim 18 is clearly distinguished from that set forth in Pitchford et al., Jenney et al. and Schanker et al., since all elements of independent claim 18 as presently amended are not disclosed singularly or in combination of the above-mentioned references. Based on the present amendments and above response, Applicant respectfully submits that claim 18 is in condition for allowance, and acknowledgement of the same is earnestly solicited.

Claims 19-27 also stand rejected under 35 U.S.C. §103(a) as being unpatentable. Since such claims variously depend from otherwise allowable claim 18 and further limit same, all claims 18-27 should be allowed.

CLAIMS 28-37 and 39-40:

The January 23, 2003 Office Action rejected previous claims 28-37 and 39-40 as allegedly being unpatentable over Jenney et al. in view of Pitchford et al. and some in further view of Schanker et al. More particularly, the Office Action alleges on numbered page 8 that a combination of such references discloses all the limitations of claim 28, such limitations being interpreted and rejected as stated in claim 18.

Based on the above arguments regarding claims 18-27, Applicant submits that all elements of independent claim 28 are not disclosed singularly or in combination of the Jenney et al., Pitchford et al. and Schanker et al. references. More particularly, none of such references discloses singularly or in combination a single network device with a combination of advanced functionality as afforded by a microprocessor to receive data from a plurality of sensors, an HTTP server to host at least one web page, and a transmitter to transmit data through an internet connection to a data processing center.

Based on these comments and the above comments presented with respect to claims 18-27, claim 28 is clearly distinguished from the systems set forth in Pitchford et al., Jenney et al. and Schanker et al., since all elements of independent claim 28 are not disclosed singularly or in combination of the above-mentioned references. Based on the present amendments and above response, Applicant respectfully submits that claim 28 is in condition for allowance, and acknowledgement of the same is earnestly solicited.

Claims 29-37 and 39-40 also stand rejected under 35 U.S.C. §103(a) as being unpatentable. Since such claims variously depend from otherwise allowable claim 28 and further limit same, all claims 28-37 and 39-40 should be allowed.

CLAIMS 41-46:

The January 23, 2003 Office Action rejected previous claims 41-46 as allegedly being unpatentable over Jenney et al. in view of Pitchford et al. and some in further view of Schanker

et al. More particularly, the Office Action alleges on numbered page 8 that a combination of such references discloses all the limitations of claim 41, such limitations being interpreted and rejected as stated in claim 18.

Based on the above arguments regarding claims 18-27, Applicant submits that all elements of independent claim 41 are not disclosed singularly or in combination of the Jenney et al., Pitchford et al. and Schanker et al. references. More particularly, none of such references discloses singularly or in combination a single network device configured to collect data from a plurality of sensors, store and forward data received from the plurality of sensors, and provide an internet connection for transmitting data to a remote center.

Based on these comments and the above comments presented with respect to claims 18-27, claim 41 is clearly distinguished from the systems set forth in Pitchford et al., Jenney et al. and Schanker et al., since all elements of independent claim 41 are not disclosed singularly or in combination of the above-mentioned references. Based on the present amendments and above response, Applicant respectfully submits that claim 41 is in condition for allowance, and acknowledgement of the same is earnestly solicited.

Claims 42-46 also stand rejected under 35 U.S.C. §103(a) as being unpatentable. Since such claims variously depend from otherwise allowable claim 41 and further limit same, all claims 41-46 should be allowed.

CLAIMS 47-50:

The January 23, 2003 Office Action rejected claims 47-50 as allegedly being unpatentable over Jenney et al. in view of Pitchford et al. and some in further view of Schanker et al. More particularly, the Office Action alleges on numbered page 8 that a combination of such references discloses all the limitations of claims 47 and 49, such limitations being interpreted and rejected as stated in claims 18 and 28.

Based on the above arguments regarding claims 18-27 and 28-40, Applicant submits that all elements of independent claims 47 and 49 are not disclosed singularly or in combination of the Jenney et al., Pitchford et al. and Schanker et al. references. More particularly, none of such references disclose a data collection system having a plurality of sensors residing in a plurality of

meters, a plurality of collectors for receiving and processing data from the sensors, and a separate monitoring system, wherein each collector is afforded with such advanced functional elements as a processor, transmitter, and HTTP server.

Based on these comments and the above comments presented with respect to claims 18-27 and 28-40, claims 47 and 49 are clearly distinguished from the systems set forth in Pitchford et al., Jenney et al. and Schanker et al., since all elements of independent claims 47 and 49 are not disclosed singularly or in combination of the above-mentioned references. Based on the present amendments and above response, Applicant respectfully submits that claims 47 and 49 are in condition for allowance, and acknowledgement of the same is earnestly solicited.

Claims 48 and 50 also stand rejected under 35 U.S.C. §103(a) as being unpatentable. Since such claims respectively depend from otherwise allowable claims 47 and 49 and further limit same, all claims 47-50 should be allowed.

CLAIM 51:

The January 23, 2003 Office Action rejected claim 51 as allegedly being unpatentable over Pitchford et al. in view of Schanker et al. More particularly, the Office Action alleges on numbered page 9 that such combination of references discloses all the limitations of claim 51, such limitations being interpreted and rejected as stated in claim 1.

Based on the above arguments regarding claims 1-14, Applicant submits that all elements of independent claim 51 are not disclosed singularly or in combination of the Pitchford et al. and Schanker et al. references, since all elements of independent claim 51 are not disclosed singularly or in combination of the above-mentioned references. Based on the present amendments and above response, Applicant respectfully submits that claim 51 is in condition for allowance, and acknowledgement of the same is earnestly solicited.

CLAIMS 61-63:

The January 23, 2003 Office Action rejected claims 61-63 as allegedly being unpatentable over Jenney et al. in view of Pitchford et al. and some in further view of Schanker et al. More particularly, the Office Action alleges on numbered page 9 that a combination of such references discloses all the limitations of claim 61, such limitations being interpreted and rejected as stated

in claims 18 and 41.

Based on the above arguments regarding claims 18-27 and 41-46, Applicant submits that all elements of independent claim 61 are not disclosed singularly or in combination of the Jenney et al., Pitchford et al. and Schanker et al. references, since all elements of independent claim 61 are not disclosed singularly or in combination of the above-mentioned references. Based on the present amendments and above response, Applicant respectfully submits that claim 61 is in condition for allowance, and acknowledgement of the same is earnestly solicited.

Claims 62-63 also stand rejected under 35 U.S.C. §103(a) as being unpatentable. Since such claims variously depend from otherwise allowable claim 61 and further limit same, all claims 61-63 should be allowed.

CONCLUSION:

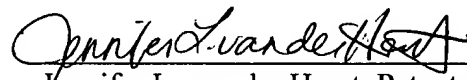
In view of the foregoing comments, Applicant respectfully submits that the present application, including claims 1, 3-37 and 39-63, is in complete condition for issuance of a formal Notice of Allowance, and action to such effect is earnestly solicited. The Examiner is invited to telephone the undersigned at his convenience should only minor issues remain after consideration of this response in order to permit early resolution of the same.

Respectfully submitted,

DORITY & MANNING,
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